NATIONAL DEFENSE UNIVERSITY
STRATEGIC FORUM
INSTITUTE FOR NATIONAL STRATEGIC STUDIES

Number 91, November 1996

Information Operations in Bosnia:

A Preliminary Assessment

by Kenneth Allard

Summary

- Coordination in Bosnia has been handicapped because the Dayton Accords did not designate a single authority to synchronize the military, political and humanitarian aspects of the mission.
- Because the Information Revolution largely stops at division level, high technology systems support the headquarters far more effectively than the soldier on the ground.
- The Bosnian experience underlines the need to substitute commercial telecommunications, auto-mation and services for outmoded military equipment and support structures.
- Much of the success of the Bosnian operation can be traced to the quality of the American soldier Cespecially in his innovative use of both commercial and military technology.

Perception versus Reality

American information operations in Bosnia underline both the importance of information in modern military operations and the difficulties of adapting traditional structures to new missions and technologies. Although the Bosnian deployment is still a work in progress, this uneven picture of progress and problems does not always square with inside-the-Beltway perceptions. Defense trade publications regularly feature stories about the high technology supporting our operations in Bosnia-complete with seductive images of electronic maps, gigabytes of computer-transmitted information, and live imagery from unmanned aerial vehicles. As one Washington-based official recently put it, "...with huge bandwidths and powerful computers, we can get intelligence to where it is needed-Humvees, cockpits, ships."

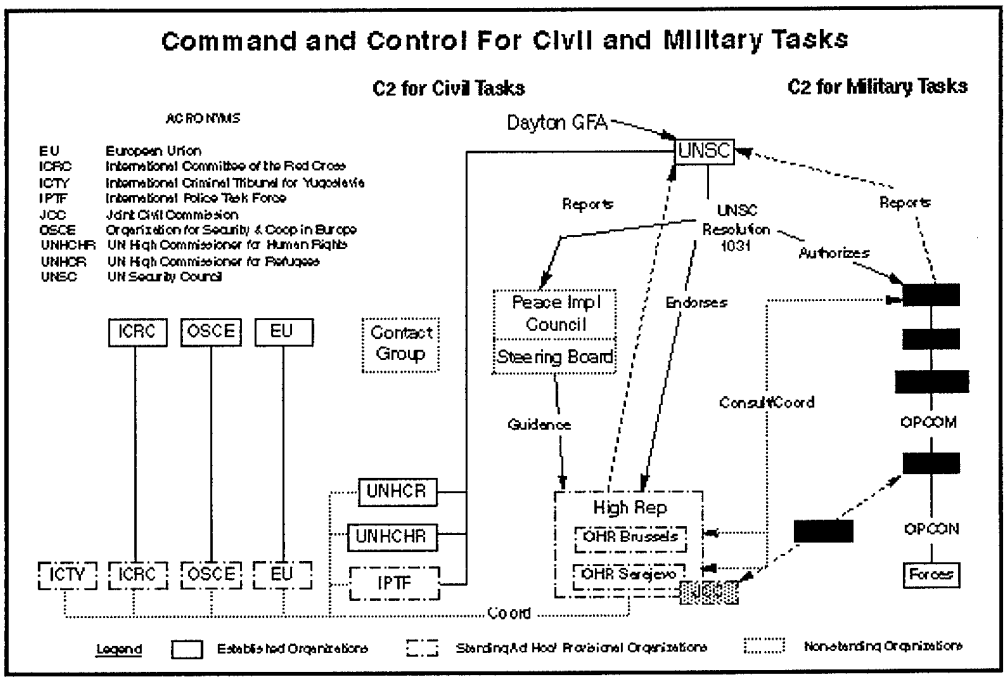
While its effects are often over-stated, an unprecedented amount of information flows from Washington to European headquarters and intermediate staging bases. A family of wide-area networks, for example, connects NATO headquarters with the Implementa-tion Force (IFOR) in Bosnia, passing operational and intelligence messages to the 33 nationalities comprising the coalition. The Internet has also been used for everything from "morale messages" exchanged between the troops and their families to "home pages" carrying frequent public affairs updates. A generation of painstaking efforts in the arcana of NATO communications standardization has paid off as well, with systems that provide an essential baseline of

interoperability for IFOR's coalition partners. Routine close air support missions over Bosnia, for example, can involve British Harriers vectored by offshore NATO AWACS aircraft to Norwegian forward air controllers providing direct support to a Swedish-led brigade.

But elaborate information flows between higher command levels do not always translate into better support for the warfighter. In fact, life in Bosnia has not changed very much for the American soldier, because the information revolution largely stops at Division level. Despite the techno-hype, subordinate brigades and battalions typically conduct operations much as they did 20 years ago: with acetate-covered 1:50,000 maps, outdated communications gear, and only those sensor or reconnaissance systems organic to ground units. Unlike the popular image of a Tom Clancy "Ops Center," most tactical command centers look much as they have in other wars-in tents, semi-destroyed buildings or the back ends of armored vehicles. Add in the effects of mountainous terrain (limiting line-of-sight communications); weather (either cold and muddy or hot and dusty) and computer viruses (sophisticated and ubiquitous) and you confront the enduring qualities of military life in the field. In the apt summation of one U.S. Army general in Bosnia, "Soldiering is still an outdoor sport."

U.S. and NATO soldiers have had considerable success in meeting these challenges: but the following issues highlighted by the Bosnian operation are especially important for the future:

Command & Control: The fundamental question of "Who's in charge?" has normally been synonymous with the dread specter of U.S. troops serving under foreign command. In practice, the 40-year history of NATO command arrangements long ago produced the compromise of "operational control" (OPCON)-a kind of leasing arrangement in which the designated NATO commander directs the actions of national elements but does not interfere in their internal functions. NATO's first out-of-area operation has raised almost daily "rendering unto Caesar" questions as various national elements-the United States among them-have carefully weighed Alliance perspectives against national interests. But on the whole, these issues have been well managed through military professionalism-newly established soldier-to-soldier relationships being especially important in the integration of the Russian brigade attached to IFOR. In contrast, the largest single command and control problem has been that the Dayton Accords did not designate a single authority to synchronize the military, political and humanitarian aspects of the mission. As the adjacent illustration shows, the relatively clean lines of NATO command and control contrast sharply with the complicated and ambiguous arrangements handicapping the already difficult tasks of reconciliation and reconstruction. Not surprisingly, those tasks have failed to keep pace with the improved security situation.



Use of Information: In both NATO and the U.S. contingents, reductions in headquarters have not kept pace with post-Cold War cutbacks in force structures. While organizational featherbedding is often the first rule of combined operations, redundant hierarchies are no match for the speed and efficiency of decentralized electronic networks. Therefore, it has not been unusual for information broadcast by these networks to be shared far faster than corroborating data successively reported through each layer in the

chain of command. In a practice known as "skip-echeloning," both Washington-based commands and IFOR headquarters elements have occasionally used these networks to bypass intervening organizations in order to exchange information requirements at first-hand-sometimes leaving the broader community in the dark. With so much information being gathered-seemingly for information's sake-hyperactive reporting requirements are characteristic features of U.S. operations in Bosnia at all levels. So too are the use of Powerpoint slides and video teleconferencing, the technologies of choice in keeping higher headquarters constantly apprised of matters both great and (far more often) small.

Media & Public Affairs: The media-the quintessential network-has suffused the entire Bosnian mission, provoking ambitious efforts by NATO and U.S. public affairs officers to make full use of information as a weapon of peace. Especially in the U.S. sector-with its 12 nation-contingent-the formation of a joint information bureau was an important step in using information as a means to provide timely and accurate information as well as to influence compliance with the Dayton Accords. Not only is this bureau run with an international staff, but its director is central to the functioning of the command group, providing daily advice to the division commander and operating in close partnership with the operations, intelligence, and civic affairs elements. The importance of these relationships could be seen in a June, 1996 incident when the Associated Press wrongly reported that Serb General (and indicted war criminal) Ratko Mladic had faced down IFOR soldiers, forcing them to withdraw. Within minutes of the story's filing on the AP wire, alarm bells went off at headquarters from Sarajevo to Washington. Although the U.S. commander in Tuzla and his public affairs staff were instantly besieged with phone calls, it took more than 24 hours to insure that an accurate version of this event had been reported. Because such an act of deliberate or accidental "disinformation" could take on a life of its own through a tightly wired global information grid, the management of perceptions became an important and continuing mission. Precisely for that reason, hard-pressed U.S. commanders regularly sought out local media opportunities, including, in one instance, a regular guest slot on a Bosnian radio call-in show. The lesson learned: in peace operations, as in other politically charged conflicts, perception is the reality.

Communications: The Army communications system has generally worked well in Bosnia, but only at great costs in manpower and effort. Because most Army tactical radios operate on line-of-sight transmissions, it is essential to place repeaters and relays on mountain tops. But with large numbers of radio nets required for the 15 brigades operating in the U.S. sector, there is a real problem with interference ("signal fratricide"). Ironically, even in one of the world's most mountainous regions there is only so much high ground to go around. When these critical relay sites must be fortified and defended, support requirements can consume 7-8% of combat manpower in addition to the U.S. signal brigade of over 1,100 soldiers. Compare this "tooth-to-tail" ratio with the AT&T satellite phone system operated in U.S. base camps by roughly 24 company employees. Although the military communications system features free morale calls, most U.S. soldiers "phone home" with AT&T prepaid credit cards-expense outweighed by clarity and convenience. Their commanders have similar feelings. "The former warring factions have better communications," snapped one U.S. brigade commander, "because they have cellular phones and I don't."

Automation: Army automation is sometimes accused of being more hobby than profession, but it certainly is more a system of kludges than a "system of systems." Such ad hoc arrangements make it more difficult to maintain computers and electronic equipment or to defend them. Heat, cold, humidity, and dust are traditional enemies of automation; but these challenges are magnified in Bosnia because there are so many computers, military supply lines are long and there is little commercial infrastructure to take up the slack. A closely related and ominous development is the fast-growing problem of computer viruses. While it is difficult to be precise, conventional wisdom among U.S. units is that 50 percent of their personal computers have suffered from viruses of one kind or another. Another problem

is that large numbers of single-purpose, "stand-alone" databases have made the integration of information incomparably more difficult, especially in the intelligence arena. Work-arounds have been the order of the day, with heroic contributions coming from the most junior ranks-often augmented by technical virtuosos drawn from the Reserve Components. Their common theme: "Sir, this system was not designed for the job we're doing here. So we messed around with it a little, and it's not perfect, but we made it work."

Support to the Warfighter: Despite the imperative of supporting the warfighter, the river of information available to U.S. military forces in Bosnia often diminishes to a trickle by the time it reaches the soldiers actually executing peacekeeping missions. On one recent operation, a brigade commander who had requested overhead imagery of his area complained that "the system" took three weeks to provide photographs that eventually turned out to be six months old. The reasons are many: communications pipe- lines too narrow to efficiently carry digital data to the field, outmoded tactical equipment, and automation resources easily overwhelmed by what data is available. But these are only some of the more pernicious effects of an unwritten but well-understood rule: the higher the headquarters the more elaborate the information trappings-and vice-versa. Such priorities meant, for example, that the decision to deploy a state-of-the-art intelligence system known as Trojan Spirit with the U.S. brigades was delayed until shortly before those units left for Bosnia. Although such impressive technologies provide a compelling way to enlarge the information highway to the lower echelons, such well-intended "fixes" must be balanced against the realities of Bosnia's 24-hours-a-day operations. A tactical intelligence officer said, "We just don't have time over here for any more visits by the Good Idea Fairy." The larger point: advances in information technology are of military value only to the extent that they are accompanied by coherent doctrine, organizations, equipment, and people-to say nothing of the time needed to make them function as a team.

One of the bright spots in this picture, however, is the stunning success of Army tactical aviation in Bosnia. The helicopters of the 1st Armored Division's Fourth Brigade combine the critical advantages of speed and mobility in mountainous terrain. But innovations by Army aviation and intelligence soldiers also led to a new method of digitizing the Apache attack helicopter's gun-camera footage-all for an investment of less than $1,000 in commercial software and off-the-shelf equipment. The resulting photographs documented Dayton Accord violations and-as unclassified imagery-they were occasionally handed over to the former warring factions. Not only did these pictures display the exact time and location of such typical violations as tanks in the zone of separation, but they also featured targeting cross-hairs centered on the offending equipment-an unsubtle but highly effective means of compelling compliance.

Conclusions

There can be no question that the military mission in Bosnia has been a success and that the American soldier, supported by his Air Force, Navy and Marine counterparts, has been the primary reason why it has been so. But the Bosnian experience should also remind us that our worship of technology in warfare must be tempered by a stronger sense of the human factor.

Information technology is uniquely affected by people, their training, their procedures, and the time they take to perform them: but the combination of these factors in combat or operational settings is constantly and curiously under-estimated. And we have barely begun to address the organizational implications of modern information technology: in synchronizing the political and military sides of a peacekeeping operation; in reducing top-heavy headquarters; and in substituting commercial products and services for outmoded military equipment and redundant support structures.

These are daunting tasks: but until they result in unshakable leadership commitments, our hard-won progress in Bosnia will fall short of the "sensor-to-shooter" potential that information age operations will demand on other fields and in other years.

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Editor in Chief - Hans Binnendijk

Editor - Jonathan W. Pierce

INTERNET DOCUMENT INFORMATION FORM

A . Report Title: Information Operations in Bosnia: A Preliminary Assessment

B. DATE Report Downloaded From the Internet: 09/27/01

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): **National Defense University Press**
Institute for National Strategic Studies
Washington, DC 20001

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
DTIC-OCA, Initials: __VM__ **Preparation Date 09/27/01**

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.